

1 **DIRECT TESTIMONY OF**

2 **MICHAEL SHINN**

3 **ON BEHALF OF**

4 **SOUTH CAROLINA ELECTRIC & GAS COMPANY**

5 **DOCKET NO. 2010-2-E**

6
7 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS AND CURRENT**
8 **POSITION.**

9 A. Michael Shinn, 100 SCANA Parkway, Cayce, South Carolina. I am
10 employed by SCANA Services, Inc. as General Manager, Fuel Procurement and
11 Asset Management. In this position I manage the purchase and delivery of coal,
12 No. 2 fuel oil and limestone on behalf of South Carolina Electric & Gas Company
13 (“SCE&G” or the “Company”) and as agent for South Carolina Generating
14 Company (“GENCO”).
15

16 **Q. DESCRIBE YOUR EDUCATIONAL BACKGROUND AND YOUR**
17 **BUSINESS EXPERIENCE.**

18 A. I earned a Bachelor of Science Degree in Mechanical Engineering from the
19 University of South Carolina in Columbia, South Carolina in 1995. While in
20 college, I was a student intern in the Fossil Hydro Power Plant Performance
21 Group for 5 years. Since graduation, I have held various positions within the Fuel
22 Procurement Department (“Fuel Department”) to include managing rail

1 transportation and delivery, spot coal purchasing, coal quality management,
2 synthetic fuel optimization and state and federal regulatory reporting. In my most
3 recent position as Manager of Fuel Technical Services, Industrial Coal and
4 Synfuel, I have worked with coal suppliers and SCE&G's power plants to
5 increase fuel and transportation flexibility as well as maximize the utilization of
6 the Company's assets. In December 2009, I was promoted to my current position
7 and report directly to the Senior Vice-President, Fuel Procurement and Asset
8 Management, SCANA Services, Inc.

9
10 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

11 A. The purpose of my testimony is to describe the procurement and delivery
12 activities for coal and No. 2 fuel oil used in electric generation for SCE&G and
13 GENCO's Williams Station for the period January 1, 2009 through December 31,
14 2009 (the "Review Period"). I also discuss changes that have occurred in coal
15 markets since the last annual fuel adjustment hearing and how these changes
16 affected coal procurement during the Review Period. Finally, I describe the
17 procurement and delivery of limestone for our wet scrubbers located at our
18 Wateree and Williams steam plants.

19
20 **Q. PLEASE DESCRIBE GENCO AND ITS RELATIONSHIP TO SCE&G.**

21 A. GENCO was incorporated on October 1, 1984 and owns the Williams
22 Electric Generating Station. GENCO sells to SCE&G the entire capacity and

1 output from the Williams Station under a Unit Power Sales Agreement approved
2 by the Federal Energy Regulatory Commission. Hereafter, when I refer to
3 SCE&G's fossil steam plants, I include GENCO.

4
5 **Q. PLEASE SUMMARIZE SCE&G'S FUEL PROCUREMENT NEEDS AND**
6 **PURCHASING PRACTICES.**

7 A. Under my supervision, the Fuel Department purchases all necessary coal,
8 No. 2 fuel oil, limestone and associated transportation for SCE&G's fossil plants
9 focusing on reliability of supply, conformity with operational and environmental
10 requirements, and reasonable prices. Given its mix of generation assets, SCE&G
11 has a significant need for coal in any given year to provide reliable energy service
12 to our customers. For example, in 2009, 4,767,428 tons of coal were consumed
13 by SCE&G in the production of electricity for its customers.

14 The burn rate for coal in 2009 was approximately 25.5% less than in 2008.
15 This percentage equates to 1,633,847 tons or approximately 14,600 rail cars of
16 coal. This reduction in coal consumption was largely due to reduced demand for
17 energy caused by the economic recession coupled with very low prices for natural
18 gas during much of the Review Period.

1 **Q. HOW DOES THE COMPANY SECURE THE NECESSARY QUANTITIES**
2 **OF COAL AND NO. 2 FUEL OIL AT COMPETITIVE PRICES?**

3 A. SCE&G maintains an active list of qualified suppliers of coal and No. 2
4 fuel oil used to power its plants. Typically, as contracts expire or needs are
5 identified, solicitations are issued for competitive sealed bids.

6
7 **Q. HOW DOES SCE&G APPROACH THE MARKET PLACE FOR COAL**
8 **AND NO. 2 FUEL OIL?**

9 A. Coal is procured under long-term (more than one year) and spot purchase
10 (up to one year) agreements to achieve a balance of reliable supplies, while
11 maintaining flexibility to react to market changes or short-term system needs.
12 SCE&G seeks to have long-term purchases represent approximately 75% to 80%
13 of projected system demand. Spot purchases provide a mechanism to manage
14 inventories and react to short-term changes in the marketplace.

15 While SCE&G's goal has been and remains one of balancing its purchases
16 of coal between long term and short term contracts, market conditions may alter
17 this goal in any given year. In the Review Period demand for energy was
18 significantly reduced due to the economic recession. In addition, natural gas
19 prices retreated making it the fuel of choice for economic dispatch in many
20 circumstances. Consequently, SCE&G's need to burn coal for generation of
21 energy was significantly less in 2009 than in the previous year. This reduction in
22 the need to burn coal as a result of these unusual and unexpected market

1 conditions, coupled with the receipt of coal under preexisting long term contracts,
2 caused inventories to grow during the Review Period. Looking forward into
3 2010, we expect our needs for coal will be primarily met by deliveries under our
4 long term contracts. Spot purchases in 2010 are projected to be approximately
5 3%, which is less than our goal of 20% to 25%. It is our expectation that the
6 balance between spot purchases and deliveries under long term contracts will
7 return to a more traditional balance in 2011.

8 In contrast to the complexities of coal purchasing contracts, contracts for
9 No. 2 fuel oil are requirements contracts that are competitively solicited every
10 two years. Generally, pricing for these contracts is based upon market indices
11 that are adjusted weekly.

12
13 **Q. PLEASE SUMMARIZE THE QUANTITY, QUALITY, AND TERM OF**
14 **THE COMPANY'S COAL PURCHASES.**

15 A. During the Review Period, the Company took delivery of approximately
16 4.5 million tons of coal under long-term agreements and 1.2 million tons of spot
17 purchases. Long-term agreements provided approximately 79% of the
18 requirement for the Company's five coal-fired stations, and GENCO's Williams
19 Station.

20 For the current period of January 2010 through December 2010, the
21 Company has long-term contracts with 10 suppliers totaling 5.2 million tons of
22 coal and representing approximately 97% of expected total receipts. For coal

1 purchased under these contracts, the quality ranges from 12,200 to 13,000 BTU
2 per pound and sulfur contents from 0.98% to 2.00%. Most of these contracts are
3 for a period of three years with some options to renew. The amount of coal under
4 contract will vary from year to year. In some of our coal contracts, we have been
5 successful in negotiating fixed pricing for the term of the contract. Other coal
6 contracts contain predetermined price adjustments, price collars and quarterly
7 adjustments.

8 For the January 2011 through December 2011 period, the Company
9 projects to have long-term contracts with 9 suppliers totaling approximately 3.8
10 million tons of coal and representing approximately 72% of the total receipts
11 depending on final contract negotiations. For coal purchased under these
12 contracts, the quality is expected to range from 12,200 to 13,000 BTU per pound
13 and sulfur contents from 0.98% to 2.00%.

14
15 **Q. HOW DOES SCE&G INSURE THAT THE RIGHT QUANTITY OF FUEL**
16 **SUPPLIES IS AVAILABLE TO MEET GENERATION DEMANDS?**

17 A. SCE&G uses several methods to bring the fuel supply and demand factors
18 together. Fuel usage levels are calculated and forecasted for each of the
19 generating plants. Coal and No. 2 fuel oil inventories are then validated and
20 contract quantities are summed and compared against system usage to determine
21 needs going forward. With this information, the Fuel Department carefully
22 evaluates the Company's coal requirements and determines whether

1 transportation options under current contracts, spot purchases or additional long
2 term agreements are appropriate. Historically, SCE&G has successfully
3 leveraged long-term and short-term coal purchases to achieve reasonable
4 purchase prices while insuring the reliability of coal supplies necessary to support
5 system needs.

6 No. 2 fuel oil is purchased to insure adequate back up to natural gas for
7 SCE&G's intermediate and peaking generators. Contracts are awarded on a
8 biannual basis using competitive bids. Typically, fuel storage tanks are filled
9 going into peak usage periods and reduced to lower levels throughout the months
10 with milder weather to protect fuel quality.

11
12 **Q. HOW DOES THE COMPANY DETERMINE A "REASONABLE PRICE"**
13 **FOR FUEL PURCHASES?**

14 A. The Fuel Department works diligently to achieve an optimization between
15 adequate supplies of acceptable quality at reasonable purchase prices with the
16 ultimate value of the delivered fuel (coal or No. 2 fuel oil) determined by the
17 actual delivered cost MMBTU accounting for any fuel impacts in the operation of
18 our generating plants. Market prices fluctuate due to such things as seasonality,
19 political turmoil, national weather trends and supply/demand imbalances.
20 SCE&G uses mechanisms such as predetermined price adjustments, price collars,
21 and quarterly adjustments to mitigate the effect market conditions have on coal

1 contracts. Market publications, indices, and industry contacts are some of the
2 ways that we stay abreast of market trends and conditions.

3
4 **Q. HOW DOES THE COMPANY MANAGE COAL INVENTORIES TO**
5 **INSURE RELIABILITY AND AVAILABILITY?**

6 A. To maintain adequate supply at its coal-fired generating facilities, the
7 Company continuously manages inventories using long-term contracts, spot
8 market purchases, and transportation options under its existing contracts. The
9 Company uses these tools in support of its efforts to maintain an inventory of
10 approximately 925,000 tons of coal based on the average of each of twelve
11 months' ending inventories to support anticipated consumption. This
12 methodology allows for an inventory of more than 925,000 tons at the beginning
13 of high demand periods and less than 925,000 tons entering the milder months.
14 This inventory level aids in protecting SCE&G against availability, production
15 and delivery problems that may arise from time to time. It also affords the
16 resources to meet our supply needs when short-term market prices are
17 unfavorable. It is always important to balance short-term needs against long-term
18 requirements and future operating conditions.

19 During the Review Period, as explained earlier in this testimony, the
20 Company's inventory level exceeded its traditional inventory level due to
21 depressed demand for energy coupled with low prices for natural gas. Taking
22 advantage of these low natural gas prices decreased the percentage of coal

1 generation in SCE&G's generation mix from approximately 64% in 2008 to
2 approximately 48% in 2009.

3
4 **Q. WHAT STEPS HAS SCE&G TAKEN TO MANAGE ITS INVENTORY**
5 **LEVEL DURING THE REVIEW PERIOD?**

6 A. During the Review Period, SCE&G renegotiated several coal contracts. As
7 explained earlier, the Company maintains contracts with several different
8 suppliers, and the majority of these contracts are for a period of three years. In
9 order to insure the availability of consistent and reliable coal supplies while
10 maintaining its ability to effectively negotiate reasonable prices, SCE&G
11 typically staggers the contracts so that approximately one-third of the contracts
12 expire each year.

13 In renegotiating contracts, the Company worked with suppliers to secure
14 certain deferments of coal deliveries to later periods. SCE&G also opened a
15 secondary stockpile at Williams Station to permit adequate and safe storage of
16 additional inventory and did not contract for any additional spot purchases during
17 the Review Period. The inventory level is now being reduced by the increased
18 burn rate during the current winter period, and the Company will continue to
19 manage the inventory level throughout 2010 as we strive to return the inventory
20 level to our traditional 925,000 ton yearly average by the end of 2011.

1 **Q. PLEASE PROVIDE AN OVERVIEW OF TRANSPORTATION RATES**
2 **DURING THE REVIEW PERIOD.**

3 A. In 2008, SCE&G entered a new contract with the CSX Railroad because
4 the then existing ten-year contract for freight rates was scheduled to end on
5 December 31, 2008. The new contract for rail transportation began January 1,
6 2009 and included freight rates substantially greater than those provided under the
7 expiring ten-year contract (as reported in Docket No. 2009-2-E). The new contract
8 is for a term of four (4) years ending December 31, 2012. Freight rates under this
9 rail contract were relatively stable during 2009, but are subject to quarterly
10 adjustments according to indices published by the American Association of
11 Railroads. SCE&G delivered 5,221,366 tons of coal under this contract for 2009
12 representing 91.15 % of total receipts.

13
14 **Q. EXPLAIN HOW THE REMAINING 8.85% OF TOTAL COAL RECEIPTS**
15 **DURING THE REVIEW PERIOD WAS DELIVERED.**

16 A. During the Review Period, SCE&G received 506,745 tons of import coal at
17 Williams Station via waterborne vessel. This tonnage represents the remaining
18 8.85% of total coal receipts during the Review Period. SCE&G purchases import
19 coal to diversify its coal supply and transportation. This diversification provides a
20 measure of protection against domestic supply and transportation constraints or
21 disruptions as the Company recently experienced in 2004 and 2008.

1 **Q. WHAT WERE SCE&G'S DELIVERED COAL COSTS FOR THE**
2 **REVIEW PERIOD?**

3 A. Exhibit No. ____ (MS-1) entitled "Coal Purchased for Steam Plants,"
4 displays the average cost in dollars per MMBTU (million British Thermal Units)
5 by month for coal purchased during the Review Period.
6

7 **Q. WHAT HAS BEEN THE RECENT PRICING TREND IN THE NO. 2 FUEL**
8 **OIL INDUSTRY?**

9 A. Delivered No. 2 fuel oil prices during the Review Period ranged from
10 \$10.30/MMBTU in March of 2009 to a high of \$15.49/MMBTU in July of 2009.
11 This pricing reflected the impact of the current economic downturn, actions of the
12 Organization of Petroleum Exporting Countries or OPEC, increasing demand in
13 Asian markets and political instability in oil producing countries. During the
14 past year, crude oil prices bottomed out on February 12, 2009 at \$33.98 per barrel
15 and spiked at approximately \$81 per barrel on October 21, 2009. Crude oil prices
16 retracted after hitting a peak in 2009, but are currently trending higher due to a
17 colder winter and the early stages of economic recovery from the current
18 recession by the world economies.

19 Exhibit No. _ (MS-2) entitled "No. 2 Fuel Oil Purchased for Steam Plants,
20 Gas Turbines & Combined Cycle Units" shows the average system delivered No.
21 2 fuel oil prices in \$/MMBTU for the Review Period.
22

1 **Q. WHAT OTHER STEPS HAS THE COMPANY TAKEN TO MITIGATE**
2 **FUEL-RELATED EXPENSES?**

3 A. SCE&G continues to expand its coal specifications by purchasing coal of
4 lower quality where practicable and acceptable to a coal-burning plant. During
5 2009, SCE&G shipped 1,271,888 tons with contracted BTU/lb values less than its
6 traditional specification. A substantial portion of this coal is blended at SCE&G's
7 Cope Station.

8
9 **Q. WHAT RESPONSIBILITIES DOES THE FUEL DEPARTMENT HAVE**
10 **WITH RESPECT TO SO₂ AND NO_x ALLOWANCES?**

11 A. The Fuel Department purchases or trades Environmental Protection Agency
12 ("EPA") sulfur-dioxide ("SO₂") and nitrogen-oxide ("NO_x") emission allowances
13 as needed by SCE&G.

14 The Clean Air Act Amendment of 1990 requires electric utilities to reduce
15 SO₂ emissions. An SO₂ Emission Allowance Trading Market was established by
16 the EPA to assist utilities in managing the costs of complying with these new
17 regulations. The Company has purchased SO₂ allowances as part of our overall
18 strategy to compensate for our SO₂ emissions. SO₂ emission allowance prices
19 have decreased during the Review Period due to active and announced SO₂
20 scrubber projects and are currently approximately \$78.00 per allowance (one ton
21 SO₂). Allowances prices have also declined and remained low due in part to
22 uncertainty surrounding how and when the EPA may modify and reissue its Clean

1 Air Interstate Rule. Price is also often impacted by the actions of hedge funds and
2 other financial organizations participating in the SO₂ markets for speculative
3 purposes. Their actions tend to increase allowance prices.

4 The Fuel Department also addresses the Company's needs for NOx
5 emission allowances. Annual NOx allowance prices are currently at \$600.00 per
6 ton.

7
8 **Q. PLEASE EXPLAIN THE FUEL DEPARTMENT'S ACTIVITIES**
9 **RELATED TO THE PROCUREMENT OF LIMESTONE FOR SCE&G'S**
10 **POLLUTION CONTROL FACILITIES.**

11 A. In order to meet standards promulgated by the EPA under the Clean Air
12 Act, the Company was required to install additional air quality or pollution
13 controls to meet these standards. As more fully discussed in the testimony of
14 Company Witness Joseph K. Todd, the Company installed wet limestone
15 scrubbers at Wateree and Williams Stations for Sulfur Dioxide (SO₂) reduction.
16 The Fuel Department is responsible for securing adequate and reliable supplies of
17 limestone for the effective operation of these scrubbers. There are limited
18 suppliers for limestone for the Company's Williams and Wateree Stations. During
19 the Review Period, the Company acquired its supplies of limestone from a single
20 source with other suppliers to be evaluated after the testing phase for the new
21 scrubbers is complete. The limestone is delivered to Williams and Wateree
22 Stations by truck since the current source of supply is located near the plants.

1 Further, a minimal inventory is maintained at each plant due to the close proximity
2 of the current supply. In summary, the Company continues to evaluate supply and
3 transportation options designed to insure adequate and reliable supplies of
4 limestone at reasonable prices at its Williams and Wateree Stations.

5
6 **Q. IN DOCKET NO. 2009-2-E THE COMPANY REPORTED THAT IT**
7 **INTENDED TO TAKE LEGAL ACTION AGAINST SOME COAL**
8 **SUPPLIERS THAT ALLEGEDLY FAILED TO PERFORM UNDER LONG**
9 **TERM CONTRACTS DURING THE 2008 REVIEW PERIOD. PLEASE**
10 **PROVIDE THE COMMISSION WITH AN UPDATE CONCERNING**
11 **THESE MATTERS.**

12 A. In 2009, the Company initiated legal action against several of its coal
13 suppliers for non-performance. Earlier this year, SCE&G settled its claims against
14 one supplier. However, the Company's claims against three other suppliers
15 remain pending before the American Arbitration Association with hearing dates
16 now scheduled for later this year. Please note that hearing dates are subject to
17 being rescheduled.

18 SCE&G is aggressively pursuing its claims in all of these cases. Any
19 benefits received as a result of these claims will be directly applied to reduce fuel
20 costs in the period(s) that any such benefits are realized.

1 **Q. WHAT REQUEST DOES SCE&G MAKE OF THE COMMISSION IN**
2 **THIS PROCEEDING?**

3 A. The Fuel Department has made reasonable efforts to obtain reliable, high
4 quality supplies of coal, No. 2 fuel oil and limestone and associated transportation
5 at the lowest possible cost to SCE&G's customers. Therefore, on behalf of
6 SCE&G, I respectfully request that the Commission find that the Company's fuel
7 purchasing practices were reasonable and prudent for the Review Period.

8
9 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

10 A. Yes.

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2
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7

Exhibit No. ____ (MS-1)

Coal Purchased for Steam Plants
\$/MMBTU

Jan. 09	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
\$4.24	\$4.18	\$4.18	\$4.36	\$4.38	\$4.31	\$4.40	\$4.40	\$4.65	\$4.39	\$4.63	\$4.68

Exhibit No. ____ (MS-2)

No. 2 Fuel Oil Purchased for Steam Plants, Gas Turbines & Combined Cycle Units

\$/MMBTU

Jan. 09	Feb.	March	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
\$11.13	\$10.30	\$10.14	\$11.89	\$12.29	\$14.05	\$15.49	\$15.23	\$14.00	\$15.21	\$15.35	\$14.98